REMARKS

Prior to examination on the merits of the accompanied CPA application, it is respectfully requested that the foregoing amendments be entered and fully considered by the Examiner. In the foregoing amendments, claims 11, 12, 42, 43, 62 and 63 have been canceled and claims 1, 33, 53, 76, 76 and 77 have been amended in order to better define that which applicant regards as the invention. Accordingly, claims 1-10, 18-22, 25-30, 33-41, 49-61, 69-72 and 75-77 are presently pending in the instant application with claims 22 and 25-30 being drawn from further consideration by the Examiner.

As can be seen from the foregoing amendments, each of independent claims 1, 33, 53, 75, 76 and 77 have been amended in order to recite that the elongated sleeve includes an embossing pattern thereon with the embossing pattern including embossing elements having at least one of curvilinear side walls, spherical surfaces and multiple elevations with respect to a referenced surface. Further, the prior art cited by the Examiner fails to disclose or remotely suggest such features. Furthermore, these amendments are similar to those set forth in applicants' related application, U.S. Patent No. 6,173,496.

With respect to the foregoing limitations, reference is made to the Official Action dated October 11, 2000 and particularly, page 5 wherein claims 10, 11, 12, 41-43 and 61-63 have been rejected under 35 U.S.C. 103a as being unpatentable over Klemmer in view of the applied prior art as applied to claims 9, 40 and 60 and further in view of U.S. Patent No. 3,404,254 issued to Jones. While the patent to Jones may disclose laser engraving the surface of cylindrical rollers, this reference clearly fails to disclose or remotely suggest a laser engraving technique wherein embossing elements having at least one of curvilinear sidewalls, spherical surfaces and multiple elevations with respect to the referenced surfaces are obtained. That is, Jones merely discloses the engraving of curved surfaces such as sleeves with a corpuscular beam. However, with the method and apparatus set forth therein, it is

impossible to achieve that which is presently set forth in the applicants claimed invention. Utilizing the device of Jones results in an embossing pattern of the type illustrated in Figure 6a of applicants' specification. In accordance with applicants' claims invention, an embossing pattern having embossing elements exhibiting at least one of curvilinear sidewalls, spherical surfaces and multiple elevations with respect to the referenced surface, is only achieved by utilizing a three dimensional laser engraving process. Clearly, the patent to Jones fails to disclose or remotely suggest such a process.

While the Examiner on page 5 of the Official Action states that "with respect to the broadly recited embossing pattern includes embossing elements having various shapes, since the particular laser engraving technique on the embossing sleeve is not disclosed and claimed as part of the present invention, the various shapes of the embossing elements in the embossing pattern are considered as design preferences based on the embossed images desired to be obtained.", reference is made to applicants' specification on page 19-23. The advantages of forming the embossing elements having at least one of curvilinear sidewalls, spherical surfaces and multiple elevations with respect to a reference surface are set forth. Reference is particularly made to Figures 7a to 7f wherein the contoured embossing elements having curvilinear sidewall spherical surfaces as well as multiple elevations are illustrated which when used result in a product having sufficient embossed definition, softness, absorbency, strength, aestethics, texture, etc. not before achieved using conventional techniques. Accordingly, it is respectfully submitted that applicants' claimed invention as now set forth in each of independent claims 1, 33, 53, 74, 76 and 77 recite features which are not reconsidered as a design preference based on the embossing which is desired to be obtained in that applicants' disclosure specifically discusses the advantages achieved in accordance therewith.

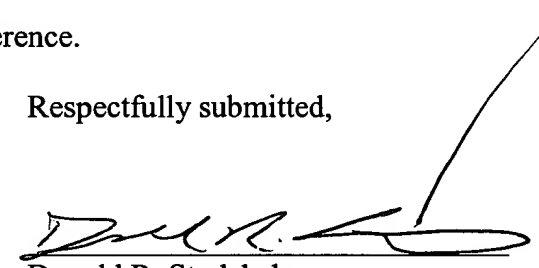
With respect to the rejection of claims 1, 2, 8, 9, 18, 19, 33, 34, 49, 50, 53, 54, 60, 69-72 and 75-77 under 35 U.S.C. 103(a) as being unpatentable over Klemmer in view of Saueressig and European Application 181726, the rejection of

claims 20, 21, 51, 52, 71 and 72 under 35 U.S.C. 103(a) as being unpatentable over Klemmer in view of Saueressig and the European publication as applied to claims 1, 33 and 53 above and further in view of Julian as well as the rejection of claims 3-7, 35-40 and 55-59 under 35 U.S.C. 103(a) as being unpatentable over Klemmer in view of Saueressig and the European publication as application as applied to claims 1, 33 and 53 above and further in view of Kildune, these rejections are respectfully traversed in that each of independent claims 1, 33, 53, 75, 76 and 77 have been amended in order to include features clearly neither disclosed and/or remotely suggested by the combination of references proposed by the Examiner. Accordingly, it is respectfully submitted that applicants' claimed invention as set forth in the presently pending claims clearly distinguishes over the prior art of record and are in proper condition for allowance.

Therefore, it is respectfully requested that the objections and rejections of record be reconsidered and withdrawn by the Examiner, that the presently pending claims be allowed and that the application be passed to issue.

Should the Examiner believe a conference would be of benefit to expediting the prosecution of the instant application, he is invited to telephone counsel to arrange such a conference.

Respectfully submitted,



Donald R. Studebaker
Registration No. 32,815

NIXON PEABODY LLP
8180 Greensboro Drive, Suite 800
McLean, Virginia 22102
(703) 790-9110

VERSION WITH MARKINGS TO SHOW CHANGES MADE

1. (Four Times Amended) In an embossing apparatus for embossing a substantially continuous web of sheet material, an embossing roll comprising:

an elongated core having first and second ends, said elongated core being formed of a substantially rigid material;

an elongated sleeve having an embossing pattern formed thereon, said elongated sleeve being formed of a material which is less rigid than said core with said embossing pattern including embossing elements having at least one of curvilinear side walls, spherical surfaces and multiple elevations with respect to a reference surface; and

a positioning means for selectively positioning said sleeve with respect to said core, said positioning means including at least one axially extending bore, a plurality of radially extending passages intersecting said axially extending bore, a circumferential groove formed in a surface of said core interconnecting said radially extending passages formed in said core for selectively communicating pressurized air to said surface of said core with said sleeve being formed of an expandable material such that when pressurized air is passed to said surface of said core, said sleeve expands so as to be displaceable with respect to said core and an axially extending slot in an outer surface of said elongated core and an axially extending key extending from an inner surface of said elongated sleeve, said key

being received in said slot for rotationally positioning said sleeve with respect to said core;

wherein said elongated sleeve is releasably secured to said core such that said elongated sleeve is axially and circumferentially fixed with respect to said core when in operation and can be selectively axially removed from said core.

33. (Four Times Amended) A system for embossing a substantially continuous web of material comprising:

a supply means for supplying at least one substantially continuous web of material;

feed means for feeding said substantially continuous web of material;

embossing means for embossing a predetermined pattern in said web material; and

a take-up means for taking-up said web material;

said embossing means comprising;

at least one elongated core formed of a substantially rigid material; and

a plurality of elongated sleeves each having an embossing pattern formed thereon with said embossing pattern including embossing elements having at least one of curvilinear side walls, spherical surfaces and multiple elevations with respect to a reference surface;

a positioning means for selectively positioning said sleeve with respect to said core, said positioning means including at least one axially extending bore, plurality of radially extending passages intersecting said axially extending bore, a circumferential groove formed in a surface of said core intersecting each of said plurality of radially extending passages formed in said core for selectively communicating pressurized air to said surface of said core, said sleeve being formed of an expandable material such that when pressurized air is passed to said surface of said core, said sleeve expands so as to be displaceable with respect to said core and an axially extending slot in an outer surface of said elongated core and an axially extending key extending from an inner surface of said elongated sleeve, said key being received in said slot for rotationally positioning said sleeve with respect to said core;

wherein said plurality of elongated sleeves are interchangeable with one another with each of said plurality of elongated sleeves being selectively secured to said core in accordance with the predetermined embossing pattern formed thereon.

53. (Four Times Amended) A system for embossing a substantially continuous web of material comprising:

a supply means for supplying at least one substantially continuous web of material;

feed means for feeding said substantially continuous web of material;

embossing means for embossing a predetermined pattern in said web material; and

a take-up means for taking-up said web material;

wherein at least one roll of the system includes;

an elongated core formed of a substantially rigid material;

an elongated sleeve formed of a material less rigid than said elongated core with said elongated sleeve being releasably secured to said core such that said elongated sleeve is axially and circumferentially fixed with respect to said core when in operation and can be selectively axially removed from said core; and

a positioning means for selectively positioning said sleeve with respect to said core, said positioning means including at least one axially extending bore, plurality of radially extending passages intersecting said axially extending bore, a circumferential groove formed in a surface of said core intersecting each of said plurality of radially extending passages formed in said core for selectively communicating pressurized air to said surface of said core and an axially extending slot in an outer surface of said elongated core and an axially extending key extending from an inner surface of said elongated sleeve, said key being received in said slot for rotationally positioning said sleeve with respect to said core;

wherein said sleeve is formed of an expandable material such that when pressurized air is passed to said surface of said core, said sleeve expands so as to be displaceable with respect to said core and said sleeve includes an embossing pattern, and said embossing pattern including embossing elements having at least

one of curvilinear side walls, spherical surfaces and multiple elevations with respect to a reference surface.

75. (Amended) In an embossing apparatus for embossing a substantially continuous web of sheet material, an embossing roll comprising:

an elongated core having first and second ends, said elongated core being formed of a substantially rigid material;

an elongated sleeve having an embossing pattern formed thereon, said elongated sleeve being formed of a material which is less rigid than said core with said embossing pattern including embossing elements having at least one of curvilinear side walls, spherical surfaces and multiple elevations with respect to a reference surface; and

a positioning means for selectively positioning said sleeve with respect to said core, said positioning means including at least one axially extending bore, a plurality of radially extending passages intersecting said axially extending bore a circumferential groove formed in a surface of said core interconnecting said radially extending passages formed in said core for selectively communicating pressurized air to said surface of said core with said sleeve being formed of an expandable material such that when pressurized air is passed to said surface of said core, said sleeve expands so as to be displaceable with respect to said core;

wherein said elongated sleeve is releaseably secured to said core such that said elongated sleeve is axially and circumferentially fixed with respect to said core when in operation and can be selectively axially removed from said core.--

76. (Amended) A system for embossing a substantially continuous web of material comprising:

a supply means for supplying at least one substantially continuous web of material;

feed means for feeding said substantially continuous web of material;

embossing means for embossing a predetermined pattern in said web material; and

a take-up means for taking-up said web material;

said embossing means comprising;

at least one elongated core formed of a substantially rigid material; and

a plurality of elongated sleeves each having an embossing pattern formed thereon with said embossing pattern including embossing elements having at least one of curvilinear side walls, spherical surfaces and multiple elevations with respect to a reference surface;

a positioning means for selectively positioning said sleeve with respect to said core, said positioning means including at least one axially extending bore, plurality of radially extending passages intersecting said axially extending bore a circumferential groove formed in a surface of said core intersecting each of said plurality of radially extending passages formed in said core for selectively communicating pressurized air to said surface of said core, said sleeve being formed

of an expandable material such that when pressurized air is passed to said surface of said core, said sleeve expands so as to be displaceable with respect to said core

wherein said plurality of elongated sleeves are interchangeable with one another with each of said plurality of elongated sleeves being selectively secured to said core in accordance with the predetermined embossing pattern formed thereon.

77. (Amended) A system for embossing a substantially continuous web of material comprising:

a supply means for supplying at least one substantially continuous web of material;

feed means for feeding said substantially continuous web of material;

embossing means for embossing a predetermined pattern in said web material; and

a take-up means for taking-up said web material;

wherein at least one roll of the system includes;

an elongated core formed of a substantially rigid material;

an elongated sleeve formed of a material less rigid than said elongated core with said elongated sleeve being releaseably secured to said core such that said elongated sleeve is axially and circumferentially fixed with respect to said core when in operation and can be selectively axially removed from said core; and

a positioning means for selectively positioning said sleeve with respect to said core, said positioning means including at least one axially extending bore, plurality of radially extending passages intersecting said axially extending bore

a circumferential groove formed in a surface of said core intersecting each of said plurality of radially extending passages formed in said core for selectively communicating pressurized air to said surface of said core; and

wherein said sleeve is formed of an expandable material such that when pressurized air is passed to said surface of said core, said sleeve expands so as to be displaceable with respect to said core and said sleeve includes an embossing pattern, and said embossing pattern including embossing elements having at least one of curvilinear side walls, spherical surfaces and multiple elevations with respect to a reference surface.